have an aggregate thickness, and the thickness of each Group, System and Great System of strata. If we assume the whole time represented in these formations to be eighty million years, then the duration of the Eozoic Æon was eleven million years; the duration of the Coal Peroid, two and a half millions, the duration of the Mesozoic, eight millions; of the Cænezoic two and a half millions, and the time since the close of the Tertiary, half a million; the Glacial period endured 352,000 years and the post-glacial interval has been 176,000 years. If we make Newcomb's calculations the basis of an estimate, all the above intervals will be reduced to one-sixth. The post-glacial period will be 30,000 years. These are, to a large extent, random results; but they show, at least, that the history of the world is embraced within a finite space of time.

Another method of gaining some conception of the length of geological periods is based chiefly on changes in the eccentricity of the earth's orbit. The earth's path about the sun, as you remember, is an ellipse. But this ellipse is constantly varying its elongation. For many centuries it increases its elongation, and then for many centuries diminishes it. It was shown by James Croll that when the eccentricity (elongation) is greatest, the climates of the earth must be affected in such a way as to lower the mean temperature of the northern hemisphere. He contends that the advent of the Glacial age was due to a state of maximum eccentricity. But the changes in eccentricity are subject to a law by which the epochs of maximum eccentricity have been calculated. The last maximum occurred 100,000 years ago, and the next preceding, 210,000 years ago. Mr. Croll thinks, therefore, that the Glacial period began about 240,000 years ago, and continued to 80,000 years ago, with a mild interglacial epoch 150,000 years ago. Now, if Mr. Croll is right in ascribing glacial periods primarily to maximum eccentricity, it would appear that the decline of continental glaciation took place about 80,000 years since. This high number is not confirmed by any of the other methods of computation. There is nothing